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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/666,487	09/19/2003	Han Ting Chang	J7184(V)	8012

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EXAMINER

GEMBEH, SHIRLEY V

ART UNIT PAPER NUMBER

1614

DATE MAILED: 12/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/666,487

Applicant(s)

CHANG ET AL.

Examiner

Shirley V. Gembeh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

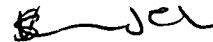
Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |



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DETAILED ACTION

Status of claims:

Preliminary amendment filed September 19, 2003 has been received and entered.

Claims 1-3 have been amended.

1. claims 1-3 are pending.

2. claims 1-3 are rejected.

Information Disclosure Statement

The information disclosure statement (IDS) submitted on April 23, 2004 and March 15, 2004 have been considered.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

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I Claims 1-3 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 – 6 of U.S. Patent Application No. 10/665710. Although the conflicting claims are not identical, they are not patentably distinct from each other. The reasons are as follows:

- Both sets of claims refer to an oral composition comprising a polymer obtainable by co-polymerization of co-monomers.
- Both applications recite using the same compositions and/or derivatives thereof. See current application claims 1 - 4 and copending application claims 1 – 6.
- The instant claims differ with respect to the limitation amount recited in the copending claim 1, where the range of the polymer is at least 40 mol% of the mixture. In addition the instant claims differ in formula (I). The instant claimed subject matter does not have a formula (1), but comprises of a cationic and an anionic monomer, which is within the claimed subject matter in the copending application.
- In view of the foregoing, the copending application claims and the current application claims are obvious variations.

II. Claims 1-3 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 – 6 of U.S. Patent Application No. 10/665711. Although the conflicting claims are not identical, they are not patentably distinct from each other. The reasons are as follows:

- Both sets of claims refer to an oral composition comprising a polymer obtainable by co-polymerization of co-monomers.
- Both applications recite using the same compositions and/or derivatives thereof. See current application claims 1 - 4 and copending application claims 1 – 6.

In view of the foregoing, the copending application claims and the current application claims are obvious variations.

III. Claims 1-3 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 – 4 of U.S. Patent Application No.

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10/666,489. Although the conflicting claims are not identical, they are not patentably distinct from each other. The reasons are as follows:

- Both sets of claims refer to an oral composition comprising a polymer obtainable by co-polymerization of co-monomers.
- Both applications recite using the same compositions and/or derivatives thereof. See current application claims 1 - 4 and copending application claims 1 - 6.

In view of the foregoing, the copending application claims and the current application claims are obvious variations.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

III. Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Mirajkar et al., US 5,800,803 ('803).

These claims are defined as a product-by-process claims and is a product, not a process, see In re Bridgeford, 357 F2d 679, 149, USPQ 5 (CCPA 1966). It is the patentability of the product claimed and not of the recited process steps which must be established, see In re Brown, 459 F2d 531, 173 USPQ 685 (CCPA 1972); In re Wertheim, 541 F2d, 191 USPQ (CCPA 1976). A comparison of the recited process with the prior art processes does not serve to resolve the issue concerning the patentability of the product, see In re Fessman, 489 F2d 742, 180 USPQ 324 (CCPA 1974).

Mirajkar et al., disclose an oral composition product at (col. 2 line 24-39).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

IV. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mirajkar et al., US 5,800,803 ('803) taken with Wilkerson, III et al., US 5,478,881.

Mirajkar et al., teach current claim 1 an oral care dentifrice composition a pasty dentifrice (at col. 5 lines 16-17) comprising an acrylamidomethylpropylsulfonic acid (at col. 3 lines 5-7) and polyethylene glycol methylethermethacrylate (at col.3 lines 14-19.

With regards to claim 2, where in the polyethylene glycol methylethermethacrylate comprises from 5-100 polyethylene glycol subunit would have been obvious to one of ordinary skill in the art, as products of identical chemical composition cannot have mutually exclusive properties. A chemical composition and its

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properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present. In re Spada, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

The Mirajkar et al., reference also teaches instant claim 4 the process for preparing an oral care, in alcohol/water diluents, polymerizing the liquid by heating it under inert gas, in the presence of an initiator (see col. 4 lines 51+), and blending the mixture with oral care actives (see col. 5 lines 1-65).

'803 did not explicitly teach the exact combination in the instant claim 1, nor recite the polyethylene glycol methylethermethacrylate comprises from 5-100 polyethylene glycol subunits, however, the reference teaches the generality of the instant claims 1 and 2. Because, the teaching by Mirajkar in general is known in the art of dentistry as a means of applying antimicrobial/antibacterial compounds to the surface of the teeth, the person of ordinary skill in the art would use the compounds claimed in the subject matter for the use of delivering active oral care agents onto the surface of the teeth absent factual evidence. '803 (see col. 3 lines 38-67) teaches a preferred anionic copolymer, thus making it obvious for the skilled artisan to switch and use a preferred co-monomer to achieve the same end result, i.e., delivery of the active oral care agent to the surface of the tooth.

Wilkerson, III et al., teach a polymer comprising vinylbenzyltrialkylammonium methylsulfate or halide, vinyl acetate (see col. 7 lines 35-45) that is used in toothpaste (see col. 5 lines 18-28). Wilkerson, III et al., also teaches 2-acrylamido-2-methylpropane sulfonate (in current claim 1), (see col. 7 lines 40-43).

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Even though Mirajkar et al., did not teach the identical monomers in claims 1 and 2, however, it would have been obvious to combine the teachings of the above cited prior art change the polymers used in the cited prior art with that of the claimed subject matter because the Mirajkar et al., reference teaches a preferred anionic copolymer, (see col. 3 lines 38-67), thereby making it an obvious variation of polymers of that category to be used depending on the end use, flow rate and viscosity.

One having ordinary skill in the art would have been motivated to combine the teachings of Mirajkar et al. with that of Wilkerson, III et. al., specifically by switching the polymers used by Mirajkar et al., and Wilkerson, III et. al., to that of the claimed subject matter and expect a successful result in doing so because: polymers are well known in the art as a means of delivering of the active agent to the surface of the tooth or the oral cavity for a more efficacious effect. In particular, the active agents in the polymeric composition adhere to the surface, thus facilitating greater contact time between the active agent and the dental tissue. (See Mirajkar et al., col. 1 line 45-56).

Therefore, the claimed invention was prima facie obvious to make and use at the time it was made.

No claims are allowed.

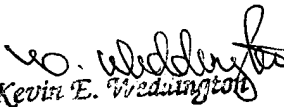
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shirley V. Gembeh whose telephone number is 571-272-8504. The examiner can normally be reached on 8:30 -5:00, Monday- Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Low can be reached on 571-272-0951. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SVG
11/23/05


Kevin E. Weddington
Primary Examiner
Art Unit 1614